

1 REMARKS:

2
3 Claim 1 (Twice Amended) has been amended by the addition
4 of the following language to Claim 1 as previously amended:
5 "which passes over a canyon in the ocean bottom" and "at a
6 first location on a first side of said canyon and is anchored
7 to the sea bottom at a second location on a second side of
8 said canyon, whereby said first and second locations are on
9 opposite sides of said canyon, and whereby a portion of said
10 neutrally buoyant tubular composite umbilical between said
11 first and second locations passes over said canyon in said
12 ocean bottom". For the antecedent basis for this language,
13 please refer to Figures 49 and 50, and to the specification
14 on page 172, line 25, to page 173, line 31. Other
15 particularly relevant specification also appears on page 165,
16 line 15 to page 172, line 23.

17
18 Claims 2, 3, 4, 5 and 6 have also been amended with the
19 addition of similar language to that which is quoted above.
20 The actual amended language is shown in each Claim. Those
21 quotes are not repeated here in the interests of brevity.

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23
24 Claim Rejections - 35 USC § 102
25 Claims 3 and 6 (Twice Amended)

26
27 Item No. 2 of the 1/17/2006 Office Action states in
28 part: "Claims 3 and 6 are rejected under 35 U.S.C. 102(e) as
29 being anticipated by Coats 6,615,848. Applicant wishes to
30 respectfully point out that Coats is an invention directly
31 solely at "An apparatus for removing material from a
32 conduit..." (lines 1 and 2 of Claim 1); and "A tool for
33 removing deposits from the inside diameter of a conduit, the

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1 tool comprising..." (lines 1 and 2 of Claim 16); and "A method
2 of monitoring and cleaning a conduit inner diameter with
3 deposits..." (lines 1 and 2 of Claim 22). The only
4 independent claims in Coats are Claims 1, 16, and 22.
5 Applicant wishes to respectfully point out that the invention
6 described in Coats is not a flowline itself, but instead, is
7 a device to clean out an existing flowline. In Coats, the
8 tubular attached to the "cleaning and monitoring tool
9 attached to its end" (Coats, Abstract) is inserted within a
10 flowline; but the combination of those two elements in Coats
11 would not make an assembled entire flowline that is
12 substantially neutrally buoyant as taught in applicant's
13 invention. Further, although Coats does describe using "a
14 nearly neutrally buoyant or substantially buoyant..." tubing
15 string attached to the cleaning tool, Coats does not describe
16 using such tubing string as a flowline itself. Therefore,
17 applicant's invention solves a different problem than Coats,
18 and such different problem is recited in applicant's Claim 3
19 (Twice Amended). Further, Coats lacks any suggestion that
20 its teachings should be modified in a manner required to meet
21 applicant's Claim 3 (Twice Amended).
22

23 With regards to Claim 3 (Twice Amended) Coats does not
24 describe a flowline for producing hydrocarbons from a subsea
25 well that is comprised of a substantially neutrally buoyant
26 tubular composite umbilical means which passes over a canyon
27 in the ocean bottom. Further, Coats does not describe
28 anchoring the substantially neutrally buoyant tubular
29 composite umbilical means to the sea bottom at a first
30 location on a first side of said canyon and anchoring it to
31 the sea bottom at a second location on a second side of said
32 canyon, whereby the first and second locations are on
33 opposite sides of said canyon, and whereby a portion of the

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1 neutrally buoyant tubular composite umbilical between the
2 first and second locations passes over the canyon in ocean
3 bottom.
4

5 This is an important invention that is needed now in the
6 oil industry. Spanning a subsea canyon with a steel flowline
7 subjects that flowline to large stresses and such a steel
8 flowline is subject to failure. Spanning a subsea canyon
9 with a portion of a neutrally buoyant tubular composite
10 umbilical provides an alternative that is less subject to
11 failure, is cheaper to install, and is faster to install.
12 So, applicant's invention is better, cheaper, and faster to
13 install. Accordingly, applicant respectfully submits that
14 Claim 3 (Twice Amended) is allowable over Coats. This same
15 reasoning also applies to Claims 2-6 as amended in the
16 following, and which are discussed below, but this logic will
17 not be repeated further in detail in the interests of brevity
18 and in the interests of saving Examiner's time. This same
19 logical argument applies to both neutrally buoyant tubular
20 composite umbilicals and to positively buoyant tubular
21 composite umbilicals that are used to span subsea canyons.
22 This general argument will be referenced below as applicant's
23 invention being "better, cheaper, and faster to install."
24

25 There are other reasons that Claim 3 (Twice Amended) is
26 allowable over Coats. The results achieved by the invention
27 are new, unexpected, superior, and surprising. The invention
28 is classified in a crowded art, and therefore, a small step
29 forward should be regarded as significant. The prior art
30 lacks any suggestion that the reference should be modified in
31 a manner required to meet the claims. Up to now, those
32 skilled in the art never appreciated the advantage of the
33 invention. If the invention were in fact obvious, because of

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1 its advantages, those skilled in the art surely would have
2 implemented it by now. That is - the fact that those skilled
3 in the art have not implemented the invention, despite its
4 great advantages, indicates that it is not obvious. The
5 invention solves a long-felt, long-existing, but unsolved
6 need. The invention is contrary to the teachings of the
7 prior art - that is, the invention goes against the grain of
8 what the prior art teaches. The invention uses a new
9 principle of operation, and applicant has blazed a new trail,
10 rather than followed one. Applicant's invention solves a
11 different problem than the reference, and such different
12 problem is recited in the claims. For future reference, the
13 above cited reasons are defined herein as the "First Set of
14 Reasons" showing that Claim 3 (Twice Amended) is allowable
15 over Coats.
16

17 With regards to Claim 6 (Twice Amended), Coats does not
18 describe a flowline for producing hydrocarbons from a subsea
19 well that is comprised of a positively buoyant tubular
20 composite umbilical means which passes over a canyon in the
21 ocean bottom. Nor does Coats describe a positively buoyant
22 tubular composite umbilical means that is anchored to the sea
23 bottom at a first location on a first side of the canyon and
24 is anchored to the sea bottom at a second location on a
25 second side of the canyon, whereby the first and second
26 locations are on opposite sides of the canyon, and whereby a
27 portion of the neutrally buoyant tubular composite umbilical
28 between the first and second locations passes over the canyon
29 in the ocean bottom. Accordingly, applicant respectfully
30 submits that Claim 6 (Twice Amended) is allowable over Coats.
31 Further, for the above defined "First Set of Reasons"
32 applicant respectfully submits that Claim 6 (Twice Amended) is
33 allowable over Coats. And yet further, applicant submits

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1 that the invention in Claim 6 (Twice Amended) is better,
2 cheaper and faster to install as described above.

3
4 Therefore, applicant has addressed all the issues in the
5 1/17/2006 Office Action related to these particular claims,
6 and therefore applicant respectfully submits that
7 Claim 3 (Twice Amended) and Claim 6 (Twice Amended) are in a
8 condition for allowability.

9
10
11 Claim Rejections - 35 USC §
12 Claims 1, 2, 4, and 5
13

14 Item No. 3 of the 1/17/2006 Office Action states in
15 part: Claims 1, 2, 4, and 5 are rejected under 35 U.S.C.
16 103(a) as being unpatentable over Costa Filho 5,289,561 in
17 view of Quigley et al 6,663,453." The Office Action further
18 states: "Costa Filho does not show a substantially neutrally
19 buoyant flow line (that) is substantially neutrally buoyant
20 in the sea water adjacent to the subsea well; however,
21 Quigley shows a similar flowline (fig 12) for producing
22 hydrocarbons (from) a subsea well including buoyancy means
23 that allows for neutral or positive buoyancy (col. 1, lines
24 1-17). Therefore, it would have been obvious to one of
25 ordinary skill in the art at the time the invention was made
26 to modify Costa Filho as taught by Quigley, to include
27 buoyancy to prevent damage to the flowline by its weight
28 (having to be thicker the deeper the flowline) at greater
29 depths while maintaining flow performance."

30
31 With respect to Claim 1 (Twice Amended), neither Costa
32 Filho nor Quigley, nor their combination, teach or suggest
33 a flowline for producing hydrocarbons from a subsea well that

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1 is comprised of a substantially neutrally buoyant tubular
2 composite umbilical means which passes over a canyon in the
3 ocean bottom. Further, neither Costa Filho nor Quigley, nor
4 their combination, teach or suggest a substantially neutrally
5 buoyant tubular composite umbilical means that is anchored to
6 the sea bottom at a first location on a first side of the
7 canyon and is anchored to the sea bottom at a second location
8 on a second side of the canyon, whereby the first and second
9 locations are on opposite sides of the canyon, and whereby a
10 portion of the neutrally buoyant tubular composite umbilical
11 between the first and second locations passes over the canyon
12 in the ocean bottom. Accordingly, applicant respectfully
13 submits that Claim 1 (Twice Amended) is allowable over Costa
14 Filho in view of Quigley.

15
16 There are other reasons that Claim 1 (Twice Amended) is
17 allowable over Costa Filho in view of Quigley. The prior-art
18 references do not contain any suggestion (express or implied)
19 that they be combined, or that they be combined in the manner
20 suggested by Claim 1 (Twice Amended). The references take
21 mutually exclusive paths and reach different solutions to
22 several different problems. Since they teach away from each
23 other, it would not be logical to combine them. The
24 references themselves teach away (expressly or by
25 implication) from the suggested combination. If they could
26 be literally combined, the references would produce an
27 inoperative literal combination. It would be necessary to
28 make more modifications, not taught in the prior art, in
29 order to combine the references in the manner suggested by
30 Claim 1 (Twice Amended). Even if combined, the references
31 would not meet the invention as defined in Claim 1 (Twice
32 Amended). The combination suggested requires a series of
33 separate, awkward combinative steps that are too involved to

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1 be considered obvious. For these reasons, applicant submits
2 that Claim 1(Twice Amended) is allowable over Costa Filho in
3 view of Quigley. These reasons in this paragraph are defined
4 herein as the "Second Set of Reasons". Further, applicant
5 submits that the invention in Claim 1(Twice Amended) is
6 better, cheaper and faster to install as described above.

7
8 Very similar arguments could be submitted one by one
9 herein for the amended language added to Claim 2(Twice
10 Amended), Claim 4 (Twice Amended), and Claim 5(Twice
11 Amended), but in the spirit of brevity, and to save
12 Examiner's valuable time, those arguments will not be
13 repeated based on the quotes of the added language to each
14 and every one of those amended claims herein. The Second Set
15 of Reasons also applies to each of those Claims. Further,
16 applicant submits that the invention as described in
17 Claim 2(Twice Amended), Claim 4(Twice Amended), and
18 Claim 5(Twice Amended) is better, cheaper and faster to
19 install as described above.

20
21 Therefore, applicant has addressed all the issues in the
22 1/17/2006 Office Action related to these claims, and
23 therefore applicant respectfully submits that Claim 1(Twice
24 Amended), Claim 2(Twice Amended), Claim 4(Twice Amended), and
25 Claim 5(Twice Amended) are in a condition of allowability
26 over Costa Filho in view of Quigley.

27
28
29 Summary

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31 In accordance with the above, applicant has responded in
32 detail to every single point in the 1/17/2006 Office Action.
33 Therefore, applicant respectfully submits that Claims 1-6, as

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1 amended herein, are in a condition for allowability.
2 Thank you.
3
4

5 PAYMENT OF FEES:
6

7 All fees are to be paid from Applicant's Account
8 No. 50-0499. To applicant's best knowledge, only the amount
9 of \$225.00 is required for the two-month extension.
10

11 If the applicant has made a mistake on the payment of
12 any fees herein, applicant requests that any such
13 deficiencies be billed to Account No. 50-0499 that was
14 established on 3/20/1998. Fees on patents and patent
15 applications entirely owned, or owned in part, by William
16 Banning Vail III may be made from this account. William
17 Banning Vail III is doing business as an inventor under the
18 name of "Vail's Inventions". Marilyn L. Vail, the wife of
19 William Banning Vail III, may also direct that fees be paid
20 from this Account No. 50-0499. If for unforeseen reasons
21 funds are not available in that account, please let applicant
22 know as soon as possible and said deficiencies will be paid
23 immediately. In the event of overpayment of any fees herein,
24 applicant respectfully requests that any overpayment be
25 deposited into Account No. 50-0499.
26
27

28 Pro-Se Case
29

30 This case herein is a pro-se case. Therefore, in the
31 event that the USPTO objects to any, or all of the claims
32 herein, applicant respectfully requests assistance from the
33 Examiner under MPEP Section 707.07(j) to draft an acceptable

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1 claim based upon the disclosure and language in the
2 application.

3
4 Further, in the event that the Examiner rejects the
5 claims, applicant requests that Examiner direct applicant
6 to the claims closest to allowability, and if possible,
7 applicant further requests that Examiner preliminarily
8 mark-up one of said claims in a future office action to
9 further aid applicant to achieve allowability of at least
10 one claim in an expeditious fashion.

11
12
13 **DECLARATION:**

14
15 As applicant, I hereby verify that all statements made
16 herein of my own knowledge are true and that all statements
17 made on my information and belief are believed to be true;
18 and further that these statements were made with the
19 knowledge that willful false statements and the like so made
20 are punishable by fine or imprisonment, or both, under
21 Section 1001 of Title 18 of the United States Code and that
22 such wilful false statements may jeopardize the validity of
23 the application or any patent issuing thereon.

24
25
26
27 This application is filed pro-se. The applicant is
28 using the book entitled "Patent It Yourself", Eleventh
29 Edition, by David Pressman, and if there are errors, please
30 advise the co-inventor, and such errors will be corrected
31 immediately. Applicant has used certain arguments presented
32 in that book herein.

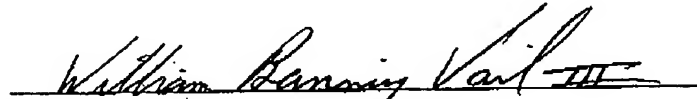
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1 Please address all correspondence involving this case to
2 the co-inventor at the below defined address. Thank you.

3
4 Very respectfully submitted,

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6
7
8 

6/19/2006
Date

9 William Banning Vail III

10 Second Named Inventor and

11 President of Smart Drilling and Completion, Inc.

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31 (Note: This is the signature page of the document entitled
32 "RESPONSE TO OFFICE ACTION MAILED 1/17/2006 AND AMENDMENT"
33 for Serial No. 10/800,443.)

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